

Republic of the Philippines
ENERGY REGULATORY COMMISSION
Pasig City



IN THE MATTER OF THE APPLICATION FOR CONFIRMATION AND APPROVAL OF EMERGENCY CAPITAL EXPENDITURE PROJECTS FOR 2020, NAMELY: (1) REPLACEMENT OF DAMAGED POWER CIRCUIT BREAKER AND POTENTIAL TRANSFORMERS OF CABADBARAN SUBSTATION; (2) CONDUCT OF EMERGENCY PREVENTIVE MAINTENANCE SCHEDULE (PMS) FOR CABADBARAN SUBSTATION; AND (3) REPLACEMENT OF DAMAGED RECLOSERS OF ALPHA 1 AND BUENAVISTA CIRCUITS

ERC CASE NO. 2021-033 RC

AGUSAN DEL NORTE ELECTRIC COOPERATIVE, INC. (ANECO),

Applicant.

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Promulgated:

June 21, 2021

NOTICE OF VIRTUAL HEARING

TO ALL INTERESTED PARTIES:

Notice is hereby given that on 05 May 2021, Agusan Del Norte Electric Cooperative, Inc. (ANECO) filed an *Application*, seeking the Commission's confirmation and approval of its Emergency Capital Expenditure (CAPEX) Projects for 2020, namely: (1) replacement of damaged power circuit breaker and potential transformers of Cabadbaran Substation; (2) conduct of emergency preventive maintenance schedule (PMS) for Cabadbaran Substation; and (3) replacement of damaged reclosers of Alpha 1 and Buenavista Circuits.

The pertinent allegations in the said *Application* are hereunder quoted as follows:

THE APPLICANT

1. ANECO is a non-stock, non-profit electric cooperative, duly organized and existing under and by virtue of the laws of the Republic of the Philippines, with principal office at Km. 2 J.C. Aquino Avenue, Butuan City.
2. It holds an exclusive franchise from the National Electrification Commission to operate an electric light and power distribution service in the province of Agusan del Norte with two (2) cities and ten (10) municipalities namely: Butuan City, Cabadbaran City, Las Nieves, Remedios T. Romualdez (RTR), Santiago, Tubay, Magallanes, Jabonga, Kitcharao, Nasipit, Buenavista and Carmen.

LEGAL BASES FOR THE APPLICATION

3. Pursuant to Republic Act No. 9136, ERC Resolution 26, Series of 2009 and other pertinent laws and rules, and in line with its mandate to provide safe, quality, efficient and reliable power delivery service to its member-consumers, ANECO submits the instant Application for the Honorable Commission's confirmation and approval of its Emergency Capital Expenditure (CAPEX) Projects for 2020, namely: (1) Replacement of Damaged Power Circuit Breaker and Potential Transformers of Cabadbaran Substation; (2) Conduct of Emergency Preventive Maintenance Schedule (PMS) for Cabadbaran Substation; and (3) Replacement of Damaged Reclosers of Alpha 1 and Buenavista circuits.

STATEMENT OF FACTS

4. ANECO's Cabadbaran Substation was constructed in 2011. Its neighboring substations are, Soriano, Santiago and Ampayon Substations. The substation's capacity had been augmented from 5MVA to 10MVA in 2019 and it serves a total of 15,280 consumers in Cabadbaran City, which is about 10% of the over-all number of captive customers of ANECO.
5. On 5 August 2020, one of the potential transformers, particularly the Phase B at the primary side, of the Cabadbaran Substation exploded causing a chain of equipment damages particularly to Phase C Line Side Bushing of SF6 Power Circuit Breaker, and Phase C Primary Bushing of Power Transformer that resulted into oil leak. A Spot Report is attached to the Emergency CAPEX Project Regulatory Year 2020 Executive Summary as Annex A.
6. By reason of these unfortunate events, ANECO decided to abruptly transfer the load served by Cabadbaran Substation to its neighboring substations namely, Soriano, Santiago and Ampayon to temporarily provide power to the affected

consumers. However, after the transfer of load from Cabadbaran Substation, the Soriano and Santiago Substations have reached their critical loading capacities and would no longer withstand its new loading condition.

7. In order to prevent the Soriano and Santiago Substations from being critically overloaded due to the transfer of load from Cabadbaran Substation and to provide safe, reliable, secure and efficient re-operation of the Cabadbaran Substation, there is a need to immediately replace the damaged potential transformer and power circuit breaker. ANECO promptly procured 69kV power circuit breaker and processed the acquisition of three (3) potential transformers with the same specification as the damaged units, including installation thereof at Cabadbaran Substation.
8. In addition, due to the damage caused by the explosion of the potential transformer, the Substation Engineer found it necessary and recommended to conduct an Emergency/Immediate Preventive Maintenance Schedule (PMS) of the Cabadbaran Substation. The Emergency PMS was conducted on 8 August 2020 by the service provider, CDO Electrocure Corporation.
9. Also, on 20 October 2020, the circuit recloser of Alpha 1 circuit inside Ampayon Substation exploded. During line patrolling, it was found out that there was no indication of fault in the circuit. Upon further investigation, tiny holes were seen above the recloser which might possibly cause a gas leakage that led to combustion followed by an explosion. On the same day, the damaged recloser was replaced with a new circuit recloser with the same kAIC rating as that of the damaged unit.
10. Unfortunately, on 22 October 2020, a line to line fault followed by an explosion at phase A and B of the recloser of Buenavista circuit inside Manapa Substation happened. The line to line fault and the explosion were caused when a "Lansiao" bird leaned between said phase A and B of the recloser of Buenavista circuit. The substation engineer urgently requested for the replacement of the damaged circuit recloser with the same kAIC rating in order to prevent any jeopardy of the operation.
11. Hence, the Emergency Capital Expenditure (CAPEX) Projects.

PROJECT DESCRIPTION

12. The Emergency CAPEX Projects subject of the instant Application are as follows:
 - I. Replacement of the Damaged 69kV Power Circuit Breaker and three (3) Potential Transformers of the

- Cabadbaran Substation with the same Specifications as the Damaged Equipment;
- II. Conduct of Emergency Preventive Maintenance Schedule (PMS) for Cabadbaran Substation; and
 - III. Replacement of Damaged Circuit Reclosers of Alpha 1 and Buenavista Circuit.

PROJECT JUSTIFICATION

- I. Replacement of the Damaged 69kV Power Circuit Breaker and three (3) Potential Transformers of the Cabadbaran Substation.
- 13. After the potential transformer exploded, ANECO immediately transferred the load served by the Cabadbaran Substation to the Soriano, Santiago and Ampayon Substations to temporarily provide power to the affected consumers. However, the transfer of load from Cabadbaran Substation has caused the Soriano and Santiago Substations to be critically overloaded and could no longer withstand its new loading condition.
 - 14. In order to prevent the continued overloading of the Soriano and Santiago Substations and to provide safe, reliable, secure and efficient re-operation of the Cabadbaran Substation, ANECO immediately replaced the damaged power circuit breaker and processed the acquisition of damaged potential transformers.
 - 15. In case ANECO did not immediately address the overloading problem of the Soriano and Santiago Substation due to the transfer of load from Cabadbaran Substation, the affected consumers of Cabadbaran Substation would suffer from an unsafe and unreliable power supply. In addition, the transfer of load of the Cabadbaran Substation to the neighboring substations has affected the total load of these substations. The consumers connected to the Soriano and Santiago Substations would likewise experience unsafe and unreliable power supply considering that the Soriano Substation is already 106% of its loading capacity while the Santiago Substation has reached 90% of its loading capacity, both being beyond the safety standard for the allowable substation capacity.
 - 16. It is provided under the Philippine Distribution Code (PDC), particularly the Standard Reference DSC PDC 016 Protection of the Distribution System that "All Distribution Equipment and devices shall be properly coordinated and adequately protected." The damaged power circuit breaker, which serves as a protective device of the 10MVA power transformer, would not be able to give the proper protection required under the PDC. In addition, the Potential Transformers that insulate the protective equipment from the primary circuit in case of high voltage have also been damaged due its explosion.

17. Likewise, there is no more assurance that the damaged power circuit breaker can properly function in a safe manner and be capable of interrupting the maximum short circuit current at the connection point required under Section 4.4.2.2 of the PDC which states “The Connection Point shall be controlled by a circuit breaker that is capable of interrupting the maximum short circuit at the point of connection.”

- II. Conduct of Emergency Preventive Maintenance Schedule (PMS) for Cabadbaran Substation.

18. Due to the damage caused by the explosion of the potential transformer, it was recommended that an Emergency/Immediate Preventive Maintenance Schedule (PMS) of the Cabadbaran Substation be conducted.

19. The conduct of Emergency PMS is aimed at assessing the condition of the Cabadbaran Substation to detect the extent of the damage caused by the explosion of the potential transformer. The Emergency PMS was conducted on 8 August 2020.

20. The Conduct of the Emergency PMS finds justification in Section 131 - Protection for Safety of the International Electrotechnical Commission (IEC) 60364-1; 2005 which states that “where danger or damage is expected to arise due to an interruption of supply, suitable provisions shall be made in the installation or installed equipment”. Thus, pursuant to the requirement of Section 131 of IEC, the Emergency PMS was immediately conducted to ensure a safe operation of the Cabadbaran Substation.

- III. Replacement of Damaged Circuit Reclosers of Alpha 1 and Buenavista Circuit.

21. Circuit Reclosers are protective devices with sensors to detect fault circuit situations and to trip the circuit breakers to interrupt the fault current. In case the circuit reclosers are damaged, the feeder/circuit and other electrical equipment connected to the circuit would be unsafe from possible faults.

22. It is provided under the Philippine Distribution Code (PDC), particularly the Standard Reference DSC PDC 016 Protection of the Distribution System that “All Distribution Equipment and devices shall be properly coordinated and adequately protected.” The damaged reclosers could no longer provide proper protection to the electrical equipment and the facilities in the substation required under the PDC.

23. Moreover, it is stated in the Philippine Electrical Code (PEC) 1.10.1.9 Interrupting Rating that “Equipment intended to interrupt current at fault levels shall have an interrupting rating sufficient for the nominal circuit voltage and the

current that is available at the line terminals of the equipment.”

24. ANECO would be violating the aforesaid regulations should the damaged circuit reclosers not be replaced. Thus, there is a need to replace the circuit reclosers of the Alpha 1 and Buenavista Circuits to comply with the regulations and to avoid further damage.

PROJECT SCHEDULE

25. On 5 August, 2020, the Requisition Issue Voucher (RIV), the bidding and sealed canvass, and purchase for the replacement of the damaged 69kV Power Circuit Breaker all took place. Thus, the purchase and replacement of the 69kV Power Circuit Breaker were completed on the day the explosion of the Potential Transformer happened and right after the power circuit breaker was confirmed damage.
26. The Potential Transformers are scheduled to be purchased on 05 – 08 November 2020. One of these transformers will be installed and commissioned on 09 November 2020 at the Cabadbaran Substation.
27. The Emergency PMS was conducted on 8 August 2020.
28. The Requisition Issue Voucher (RIV), bidding and sealed canvass and purchase of the new recloser for Alpha 1 circuit inside Ampayon Substation were completed on the same date when the recloser exploded on 20 October 2020. The recloser for Buenavista circuit was purchased on 23 November 2020 and was installed on the 30th of November.

PROJECT COST

29. The actual cost of the purchase and installation of 69kV Power Circuit Breaker is One Million Nine Hundred Ninety-Five Thousand Pesos (PhP1,995,000.00) while the cost of the three (3) Potential Transformers based on the 2019 National Electrification Administration (NEA) Price Index is Nine Hundred Thousand Pesos (PhP900,000.00) or a total cost of Two Million Eight Hundred Ninety-Five Thousand Pesos (PhP2,895,000.00).
30. The actual cost of the Emergency PMS conducted is Ninety-Two Thousand Seven Hundred Pesos (PhP92,700.00).
31. The cost of the of recloser for the Alpha 1 and the total estimated cost of the acquisition for recloser of Buenavista circuits are both totaling to One Million Three Hundred Fifty-Nine Thousand Eighty Pesos (PhP1,359,080.00).

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FINANCING PLAN

32. The proposed Emergency CAPEX Projects will be directly financed by ANECO through the Reinvestment Fund for Sustainable CAPEX (RFSC).

RATE IMPACT

33. The implementation of the proposed Emergency CAPEX Projects will not have an impact on ANECO's existing RFSC rate as shown in Indicative Rate Impact presented below, *to wit:*

PARTICULARS	YEAR			2020 to 2022 SUMMARY
	2020	2021	2022	
Forecasted Energy Sales (kWh)	373,205,000	395,055,000	417,292,000	1,185,552,000
Cash Balance Beginning, Php, Excess/(Shortfall)	47,822,711	68,367,496	52,415,542	47,822,711
CASH INFLOW				
Current year collection @ Php 0.2178/kWh @ 95% Collection Efficiency	77,219,847	81,740,830	86,341,888	245,302,564
Distribution Revenue for General Fund funded Procurement		38,113,460		38,113,460
Loan Proceeds from Financial Institutions (2017,2019-21 to be filed Multi yr CAPEX),Php		369,777,110	153,274,273	523,051,383
Loan Proceeds (CAPEX under this application), Php				
Loan Proceeds from Other Capex (2014 - 2016), Php		30,493,095		30,493,095
Total Cash inflows, Php	77,219,847	520,124,495	239,616,161	836,960,502
Available Cash for Disbursement	125,042,557	588,491,990	292,031,703	884,783,212
CASH OUTFLOWS				
Payment of General Fund funded Procurement		38,113,460		38,113,460
Payment of 2017,2019-21 to be filed Multi yr CAPEX,Ph		376,775,110	153,274,273	530,049,383
Payment of CAPEX Project under this Application	4,346,780			4,346,780
Payment of Other CAPEX Project (2014-2016)	-	30,493,095		30,493,095
Payment of Amortization of Old Debts	52,295,681	50,156,042	49,140,710	151,592,433
Payment of Amortization for New Loans (2014-2016 CapEx Loan Amortization)		2,979,108	2,979,108	5,958,217
Payment of Amortization for New Loans (2017-2019-21 CapEx Loan Amortization)		37,559,633	53,128,269	90,687,902
ERC Docketing Fee (Php 0.75/Php 100)	32,601			32,601
Total Cash Outflows, Php	56,675,062	536,076,448	258,522,360	851,273,870
Cash Balance Ending, Php, Excess/(Shortfall)	68,367,496	52,415,542	33,509,342	33,509,342
Excess/ (Shortfall) on RFSC, Php/kWh	0.1832	0.1327	0.0803	0.0283

34. Further, as shown in the Sensitivity Analysis If Collection Efficiency is at 85% or 100% and in the Sensitivity Analysis If kWh Sale Is At 90% or 95% With Collection Efficiency of 95%, presented below, there will be no rate increase or additional revenue requirement for the implementation of the Emergency CAPEX Projects as the existing RFSC rate is enough to cover the cost.

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SENSITIVITY ANALYSIS IF COLLECTION EFFICIENCY IS 85% OR 100%

PARTICULARS	PERCENTAGE OF COLLECTION	
	85%	100%
kWh Sales Forecast	1,185,552,000	1,185,552,000
Current RFSC Rate per kWh	0.2178	0.2178
Cash Inflow from RFSC Rate (Collection Efficiency)	219,481,242	258,213,226
Add: RFSC Beginning Balance	47,822,711	47,822,711
Total RFSC Fund from Collection & Beginning Balance	267,303,952	306,035,936
Add: DSM Revenue for General Fund funded Procurement	38,113,460	38,113,460
Loan Proceeds from Multi Yr Capex (2017,2019-21), Php	523,051,383	523,051,383
Loan Proceeds from Other Capex (2014 - 2016), Php	30,493,095	30,493,095
Total Cash Available for Disbursement	858,961,890	897,693,874
Less: Capex Plan Cost Cash Outflow	851,273,870	851,273,870
Indicative (Additional) Revenue Requirement	7,688,020	46,420,004

Current RFSC Rate per kWh (Considering Collection Efficiency)	0.7245	0.7572
Capex Plan Cost Cash Flow Indicative Rate per kWh	0.7180	0.7180
Indicative (Additional) Revenue Requirement per kWh	0.0065	0.0392

SENSITIVITY ANALYSIS IF kWh SALES IS At 90% or 95% WITH 95% COLLECTION EFFICIENCY

PARTICULARS	PERCENTAGE OF kWh SALES	
	90%	95%
kWh Sales Forecast	1,066,996,800	1,126,274,400
Current RFSC Rate per kWh	0.2178	0.2178
Cash Inflow from RFSC Rate (Collection Efficiency)	220,772,308	233,037,436
Add: RFSC Beginning Balance	47,822,711	47,822,711
Total RFSC Fund from Collection & Beginning Balance	268,595,018	280,860,147
Add: DSM Revenue for General Fund funded Procurement	38,113,460	38,113,460
Loan Proceeds from Multi Yr CapEx (2017, 2019-21), Php	523,051,383	523,051,383
Loan Proceeds from Other Capex (2014 - 2016), Php	30,493,095	30,493,095
Total Cash Available for Disbursement	860,252,956	872,518,084
Less: Capex Plan Cost Cash Outflow	851,273,870	851,273,870
Indicative (Additional) Revenue Requirement	8,979,086	21,244,214

Current RFSC Rate per kWh(Considering Collection Efficiency)	0.8062	0.7747
Capex Plan Cost Cash Flow Indicative Rate per kWh	0.7978	0.7558
Indicative (Additional) Revenue Requirement per kWh	0.0084	0.0189

SUBMISSION OF DOCUMENTARY AND PRE-FILING REQUIREMENTS

35. Finally, in compliance with the documentary as well as pre-filing requirements under ERC Resolution 26, Series of 2009 and the ERC Rules of Practice and Procedure, respectively, the following documents are being submitted herewith to form integral parts hereof, as follows, *to wit*:

Annex Markings	Description of Document
"A"	Executive Summary of the Emergency CAPEX Projects
"B" and series	Proof of furnishing of copies of the Application to the Sangguniang Lungsod of Butuan and Sangguniang Panlalawigan of Agusan del Norte
"C" and series	Proof of publication of the Application in a newspaper of general circulation in ANECO's franchise area or where it principally operates.

PRAYER

WHEREFORE, premises considered, it is respectfully prayed of this Honorable Commission that after due notice and hearing, ANECO's Emergency Capital Expenditure Projects for 2020 consisting of the (1) Replacement of Damaged Power Circuit Breaker and Potential Transformers of Cabadbaran Substation; (2) Conduct of Emergency Preventive Maintenance Schedule (PMS) for Cabadbaran Substation; and (3) Replacement of Damaged Reclosers of Alpha 1 and Buenavista circuits be confirmed and approved accordingly.

Other relief, just and equitable in the premises are likewise prayed for.

The Commission has set the instant *Application* for the determination of compliance with the jurisdictional requirements, expository presentation, pre-trial conference, and presentation of evidence on the following dates and online platform for the conduct thereof, pursuant to Resolution No. 09, Series of 2020,¹ dated 24 September 2020:

Date	Platform	Activity
14 July 2021 (Wednesday) at nine o'clock in the morning (9:00 A.M.)	Microsoft Teams Application	Determination of compliance with jurisdictional requirements and Expository Presentation
21 July 2021 (Wednesday) at nine o'clock in the morning (9:00 A.M.)	Microsoft Teams Application	Pre-trial Conference and Presentation of Evidence

Accordingly, ANECO is hereby directed to host the virtual hearings at **ANECO's Principal Office in Km. 2 J.C. Aquino Avenue, Butuan City** as the designated venue for the conduct thereof, and ensure that the same is open to the public and the community quarantine guidelines are observed at all times. Moreover, ANECO shall guarantee that, during the conduct of the expository presentation, the participation of the public shall not be impaired.

Any interested stakeholder may submit its comments and/or clarifications at least one (1) calendar day prior to the scheduled virtual

¹ A Resolution Adopting the Guidelines Governing Electronic Applications, Filings and Virtual Hearings Before the Energy Regulatory Commission.

hearing, via electronic mail (e-mail) at docket@erc.ph, copy furnish the Legal Service through legal@erc.ph. The Commission shall give priority to the stakeholders who have duly submitted their respective comments and/or clarifications, to discuss the same and propound questions during the course of the expository presentation.

Moreover, all persons who have an interest in the subject matter of the instant case may become a party by filing with the Commission via e-mail at docket@erc.ph, copy furnish the Legal Service through legal@erc.ph, a verified Petition to Intervene at least five (5) calendar days prior to the date of the initial virtual hearing and subject to the requirements under Rule 9 of the ERC Revised Rules of Practice and Procedure, indicating therein the docket number and title of the case and stating the following:

- 1) The petitioner's name, mailing address, and e-mail address;
- 2) The nature of petitioner's interest in the subject matter of the proceeding and the way and manner in which such interest is affected by the issues involved in the proceeding; and
- 3) A statement of the relief desired.

Likewise, all other persons who may want their views known to the Commission with respect to the subject matter of the case may file through e-mail at docket@erc.ph, copy furnish the Legal Service through legal@erc.ph, their Opposition or Comment thereon at least five (5) calendar days prior to the initial virtual hearing and subject to the requirements under Rule 9 of the ERC Revised Rules of Practice and Procedure. No particular form of Opposition or Comment is required, but the document, letter, or writing should contain the following:

- 1) The name, mailing address, and e-mail address of such person;
- 2) A concise statement of the Opposition or Comment; and
- 3) The grounds relied upon.

Any of the persons mentioned in the preceding paragraphs may access the copy of the *Application* on the Commission's official website at www.erc.gov.ph.

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Finally, all interested persons may be allowed to join the scheduled virtual hearings by providing the Commission, thru legal.virtualhearings@erc.ph, with their respective e-mail addresses and indicating therein the case number of the instant *Application*. The Commission will send the access link/s to the aforementioned hearing platform within five (5) working days prior to the scheduled hearings.

WITNESS, the Honorable Commissioners **ALEXIS M. LUMBATAN, CATHERINE P. MACEDA, FLORESINDA G. BALDO-DIGAL** and **MARKO ROMEO L. FUENTES**, Energy Regulatory Commission, this 11th day of June 2021 in Pasig City.


AGNES YST DEVANADERA
Chairperson and CEO

LS: RCP/LSP/MCCG

